

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data storage system, comprising:
a plurality of read/write heads;
a plurality of data channels, a subset of said plurality of data channels
coupled to a read/write head of said plurality of read/write heads ~~such that~~; and
a storage medium, said storage medium including a plurality of storage
bands, wherein each read/write head is uniquely associated with a single storage band
~~with a~~ such that the read/write heads are alignable with a single mode of operation,
and access at least said subset of said plurality of data channels.

2. (Original) The data storage system of claim 1, wherein said data storage system comprises a magnetic tape drive.

3. (Currently Amended) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head having a read/write element configured for read after write operation as the storage medium travels in a first direction of a read/write configuration and at least one read/write head having a write/read element configured for read after write operation as the storage medium travels in a second direction of a write/read configuration.

4. (Withdrawn) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head of a read/write/read configuration and at least one read/write head of a write/read/write configuration.

5. (Currently Amended) The data storage system of claim 1, wherein at least one read/write head of said plurality of read/write heads includes a read/write element configured for read after write operation as the storage medium travels in a first direction and a write/read element configured for read after write operation as the storage medium travels in a second direction.

6. (Currently Amended) The data storage system of claim 1, wherein ~~each of a number of~~ said plurality of read/write heads is displaced in a direction of travel of the storage medium relative to an adjacent read/write head~~equal to a number of said plurality of storage bands.~~

7. (Currently Amended) The data storage system of claim 1, wherein ~~each of a relationship between said subset of data channels and~~ said plurality of read/write heads is coupled to at least two~~defined as M/N, whereby M/N comprises a number of data channels per read/write head.~~

8. (Original) The data storage system of claim 1, wherein a relationship between said subset of data channels, said plurality of read/write heads, and said plurality of storage bands is defined as M/N, whereby M comprises a total number of data channels, and N comprises at least one of a total number of said plurality of read/write heads and a total number of said plurality of storage bands.

9. (Cancelled).

10. (Currently Amended) A read/write head assembly, comprising:
a plurality of read/write heads, each read/write head of said plurality of read/write heads having a plurality of read/write elements each operable to read ~~and/or~~ write data from or to corresponding tracks of a corresponding storage band of a plurality of storage bands arranged on a storage medium with each read/write head being uniquely associated with a single storage band; and
a plurality of data channels corresponding to the plurality of read/write elements, a subset of said plurality of data channels coupled to a read/write head of said plurality of read/write heads.

11. (Original) The read/write head assembly of claim 10, wherein said storage medium comprises a magnetic tape.

12. (Currently Amended) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head having a read/write element configured for read after write operation when the storage medium travels in a first direction of a read/write configuration and at least one read/write head having of a write/read element configured for read after write operation when the storage medium travels in a second direction of a configuration.

13. (Withdrawn) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head of a read/write/read configuration and at least one read/write head of a write/read/write configuration.

14. (Currently Amended) The read/write head assembly of claim 10, wherein at least one read/write head of said plurality of read/write heads includes a read/write element configured for read after write operation when the storage medium travels in a first direction and a write/read element configured for read after write operation when the storage medium travels in a second direction.

15. (Original) The read/write head assembly of claim 10, wherein said subset of said plurality of data channels comprises a read channel and a write channel.

16. (Currently Amended) The read/write head assembly of claim 10, wherein each of a number of said plurality of read/write heads is coupled to a plurality of data channels equal to a number of associated with one of said plurality of storage bands.

17-18. (Canceled).

19. (Currently Amended) The read/write head assembly of claim 10, further comprising wherein the position control unit comprises:

an actuation unit, said actuation unit operable to align at least one read/write head of said plurality of read/write heads with said corresponding storage band of said plurality of storage bands with a fine positioning operation.

20. (Canceled).

21. (New) A data storage system comprising:

a plurality of read/write heads each associated with a corresponding one of a plurality of storage bands extending across a magnetic storage medium wherein each of the plurality of read/write heads is displaced along a direction of travel of the magnetic storage medium relative to an adjacent read/write head and wherein each of the plurality of read/write heads is coupled to at least one of a plurality of data channels.

22. (New) The data storage system of claim 21 wherein each of the plurality of read/write heads comprises:

a plurality of read/write elements for reading from and writing to, respectively, a corresponding one of a plurality of data channels associated with each of the plurality of storage bands on a magnetic storage medium.

23. (New) The data storage system of claim 21 wherein at least one of the plurality of read/write heads comprises a read/write element configured for read after write operation as the magnetic storage medium travels in a first direction and at least one of the plurality of read/write heads comprises a write/read element configured for read after write operation as the magnetic storage medium travels in a direction opposite the first direction.

24. (New) The data storage system of claim 21 wherein at least one of the plurality of read/write heads comprises a read/write element configured for read after write operation as the magnetic storage medium travels in a first direction and at least one write/read element configured for read after write operation as the magnetic storage medium travels in a direction opposite the first direction.